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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
| 10/051,777 | 01/16/2002 | Raymond T. Hsu | 020104 | 1527 |
| 23696 7590 01/17/2008 QUALCOMM INCORPORATED 5775 MOREHOUSE DR. SAN DIEGO, CA 92121 | | | EXAMINER MATTIS, JASON E | |
| | | | ART UNIT 2616 | PAPER NUMBER |
| | | | NOTIFICATION DATE 01/17/2008 | DELIVERY MODE ELECTRONIC |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/051,777

Applicant(s)

HSU, RAYMOND T.

Examiner

Jason E. Mattis

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is in response to the Amendment filed 11/5/07. Claims 1-33 are currently pending in the application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Basilier (U.S. Publication US 2003/0073453 A1) in view of Svanbro et al. (U.S. Publication US 2002/0196743 A1).

With respect to claims 1 and 33, Basilier discloses a wireless communication apparatus in a wireless communication system supporting a broadcast service method **(See the abstract of Basilier for reference to a PDSN, which is a wireless communication apparatus, in a wireless communication system supporting multicast and broadcast services)**. Basilier also discloses receiving an IP address and a service option parameter for the broadcast service from a base station during establishment of a user traffic channel between a packet data serving node and a base

station (**See page 4 paragraphs 25-26 and Figure 2 of Basilier for reference to PDSN 202 receiving a message from BS 204 including an IP address and service information for processing a requested multicast or broadcast session**). Basilier further discloses receiving a broadcast packet flow sent via an IP network (**See page 4 paragraph 26 and Figure 2 of Basilier for reference to sending multicast or broadcast packets from IP network 120 via PDSN 202 through BS 204 to an MS 206**). Basilier also discloses mapping the broadcast packet flow identified by an address in the packet header to the user traffic channel using the IP multicast address (**See page 4 paragraphs 25-27 and Figure 2 of Basilier for reference to mapping multicast and broadcast packet flows between address identifiers used in the wireless channels and IP multicast addresses used in the IP network**). Basilier does not disclose using the service option parameter to indicate whether header compression is enabled and if so which header compression algorithm is used.

With respect to claim 11, Basilier discloses a packet data serving node configured to implement a method (**See the abstract of Basilier for reference to a PDSN implementing a wireless communication method**). Basilier also discloses receiving flow treatment and mapping data from a base station during establishment of a user traffic channel with the base station (**See page 4 paragraphs 25-26 of Basilier for reference to receiving flow control and mapping information from a BS 204 at a BDSN 202**). Basilier further discloses receiving a broadcast packet flow (**See page 4 paragraph 26 and Figure 2 of Basilier for reference to sending multicast or broadcast packets from IP network 120 via PDSN 202 through BS 204 to an MS**

206). Basilier also discloses mapping the broadcast packet flow identified by an address in the packet header to the user traffic channel using an IP multicast address from the flow treatment and mapping data **(See page 4 paragraphs 25-27 and Figure 2 of Basilier for reference to mapping multicast and broadcast packet flows between address identifiers used in the wireless channels and IP multicast addresses used in the IP network)**. Basilier does not disclose using a service option parameter to indicate whether header compression is enabled and if so which header compression algorithm is used.

With respect to claim 21, Basilier discloses a packet data serving node for receiving IP packets from and IP network and operating to send the IP packets to a base station **(See the abstract of Basilier for reference to a PDSN receiving IP packets from an IP network and sending them to a BS)**. Basilier also discloses an A10 connection communicating user traffic to the base station **(See page 5 paragraph 28 of Basilier for reference to using an A10 connection to communicate user payload traffic)**. Basilier further discloses an IP network connection for connecting the packet data serving node to the IP network **(See page 3 paragraph 22 and Figure 1 of Basilier for reference to the PDSN 202 receiving data packets through a connection to IP network 135)**. Basilier also discloses flow treatment and mapping data comprising an IP multicast address and a service option parameter received by the PDSN in establishment of the A10 connection **(See pages 4-5 paragraphs 25-28 and Figure 2 of Basilier for reference to PDSN 202 receiving a messages from BS 204 including an IP address and service information for processing a requested**

multicast or broadcast session to set up and A10 connection). Basilier further discloses mapping the IP packets to the A10 connection based on a multicast address of the packets using the flow treatment and mapping data **(See page 4 paragraphs 25-27 and Figure 2 of Basilier for reference to mapping multicast and broadcast packet flows between address identifiers used in the wireless channels and IP multicast addresses used in the IP network).** Basilier does not disclose using the service option parameter to indicate whether header compression is enabled and if so which header compression algorithm is used. Basilier also does not specifically disclose using an A11 signaling connection.

With respect to claim 27, Basilier discloses a base station for use in a wireless communication system supporting a broadcast service method **(See the abstract of Basilier for reference to a base station in a wireless communication system supporting broadcast and multicast communication methods).** Basilier also discloses configuring flow treatment and mapping data comprising an IP multicast address and a service option parameter **(See page 4 paragraphs 25-26 and Figure 2 of Basilier for reference to PDSN 202 receiving a message from BS 204 including an IP address and service information for processing a requested multicast or broadcast session).** Basilier further discloses establishing a signaling connection with a PDSN, requesting a user traffic channel with the PDSN, sending the flow treatment and mapping data to the PDSN, and establishing the user traffic channel with the PDSN **(See pages 4-5 paragraphs 25-28 and Figure 2 of Basilier for reference to BS 204 sending, to the PDSN 202, signaling information over a signaling channel**

including the IP address and service information to set up an A10 user data channel between the BS 204 and PDSN 202). Basilier also discloses receiving IP packets addressed to the IP multicast address on the user traffic channel (**See page 4 paragraph 26 and Figure 2 of Basilier for reference to sending multicast or broadcast packets from IP network 120 via PDSN 202 through BS 204 to an MS 206**). Basilier does not disclose using the service option parameter to indicate whether header compression is enabled and if so which header compression algorithm is used.

With respect to claims 1, 11, 21, 27, and 33, Svanbro et al., in the field of communications, discloses using a service option parameter to indicate whether header compression is enabled and if so which header compression algorithm is used (See column 4 lines 17-61 and Table 1 of Svanbro et al. for reference to a PDCU PDU including a five bit PID field, which is a type of service option parameter, indicating whether header compression is being used and what specific type of header compression is being used). Using a service option parameter to indicate whether header compression is enabled and if so which header compression algorithm is used has the advantage of allowing packet headers to be compressed in order to conserve network bandwidth used for packet transmission.

It would have been obvious for one of ordinary skill in the art at the time of the invention, when presented with the work of Svanbro et al., to combine using a service option parameter to indicate whether header compression is enabled and if so which header compression algorithm is used, as suggested by Svanbro et al., with the system

and method of Basilier, with the motivation being to allow headers to be compressed in order to conserve network bandwidth used for packet transmission.

With respect to claim 21, although Basilier does disclose using A10 connections to transmit user data (**See page 5 paragraph 28 of Basilier**), Basilier does not specifically disclose that signaling information is carried over an A11 connection. Using A10 user data connections in conjunction with A11 signaling connections is old and well known in the art of communications. It would have been obvious for one of ordinary skill in the art at the time of the invention to combine using A11 signaling connection in addition to the A10 user data connection with the motivation being to use a common signaling protocol for the data and signaling messages of the system.

With respect to claims 2, 12 and 22, Basilier discloses using a content server (**See the abstract of Basilier for reference to a content server**).

With respect to claims 3 and 13, Basilier discloses using IP data packets (**See the abstract of Basilier for reference to IP data packets**).

With respect to claims 4, 14, and 23, Basilier discloses the content server serving the broadcast packet flow to the PDSN via the IP network (**See page 3 paragraph 22 and Figure 1 of Basilier for reference to a content server serving packets to a PDSN via IP network 120**).

With respect to claims 5, 15, 24, and 28, Basilier discloses the packet flow comprising video data (**See page 1 paragraph 2 of Basilier for reference to video data**).

With respect to claims 6, 16, 25, and 29, Basilier discloses the packet flow comprising audio data (See page 1 paragraph 2 of Basilier for reference to voice data, which is audio data).

With respect to claims 7, 17, and 30, Basilier discloses using an A10 connection (See page 5 paragraph 28 of Basilier for reference to using an A10 connection).

With respect to claims 8 and 18, Basilier discloses that the IP multicast address and service option parameter are received over a signaling connection between the PDSN and the BS (See page 4 paragraphs 25-26 for reference to the PDSN and BS exchanging information over a signaling connection).

With respect to claims 9, 10, 19, 20, 26, 31, and 32, Basilier also does not specifically disclose using an A11 signaling connection.

With respect to claims 9, 10, 19, 20, 26, 31, and 32, although Basilier does disclose using A10 connections to transmit user data (See page 5 paragraph 28 of Basilier), Basilier does not specifically disclose that signaling information is carried over an A11 connection. Using A10 user data connections in conjunction with A11 signaling connections is old and well known in the art of communications. It would have been obvious for one of ordinary skill in the art at the time of the invention to combine using A11 signaling connection in addition to the A10 user data connection with the motivation being to use a common signaling protocol for the data and signaling messages of the system.

Response to Arguments

4. Applicant's arguments with respect to claims 1-33 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

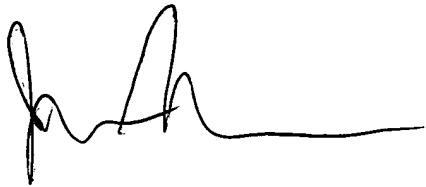
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason E. Mattis whose telephone number is (571) 272-3154. The examiner can normally be reached on M-F 8AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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A handwritten signature in black ink, appearing to read 'J. Mattis', followed by a long horizontal line.

Jason E Mattis
Examiner
Art Unit 2616

jem